BENEFITS TO PEOPLE

At a Glance Report

Daniel Boone National Forest

Why are forests and grasslands important?
National forests and grasslands provide public benefits (also known as ecosystem services) such as timber, clean air and water, forage, and energy production. National Forest System lands also provide recreation, cultural and heritage opportunities that play an important role in how communities come together for physical and mental health, family, and to connect to the land. In many rural areas, the infrastructure, employment, goods and services provided are a basis for the structure of the community. The purpose of this report is to explain the benefits to people of National Forest System lands and complement the Jobs & Income At a Glance Reports1. This is a brief snapshot of Daniel Boone National Forest benefits using national data sets. The reader is encouraged to explore more detailed information from their local Forest Service office, the Benefits to People StoryMap, and at the national forest's website2.

Setting
The map on the left shows the Daniel Boone National Forest. The surrounding area is included to demonstrate the wider area of potential benefit outside the forest. All seventeen counties overlapping the national forest’s boundaries are non-metro containing less than 50,000 residents. On the Daniel Boone National Forest, the largest land use type3 is forest (93%), of which 99% is timberland and 1% is reserved. Water (6%) and nonforest (1.5%) are the other land use types.

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1 Jobs & Income At a Glance Reports can be found at https://www.fs.fed.us/emc/economics/contributions/at-a-glance.shtml
2 Find the Daniel Boone National Forest website at http://www.fs.usda.gov/dbnf/
3 Forest land use is defined as land that is at least 10% stocked by forest trees of any size, or land formerly having such tree cover, and not currently developed for a nonforest use. Timberland is forest land that is producing or capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment. Reserve forest land is permanently reserved from wood products utilization through statute or administrative designation. Nonforest land is land that does not support or has never supported, forests and lands formerly forested where use of timber management is precluded by development for other uses.
Recreation Opportunities & Scenery
The top activities for approximately 1,240,000 visitors to the Daniel Boone National Forest are fishing, hiking/walking, and viewing natural features. For a list of the recreation sites on the forest, visit the Benefits to People StoryMap and at the forest's website⁴.

Recreationists, outfitters, and guides benefit directly from National Forest System land while local businesses benefit from spending by forest visitors. Total spending by visitors to the Daniel Boone National Forest is about $49.0 million annually.

Visits to the forest related to wildlife (hunting, fishing and wildlife viewing) was 25% of total visits. These people benefit from healthy ecosystems that contribute to wildlife related recreation.

Landscapes and features of the Daniel Boone National Forest provide scenic resources appreciated by local residents, recreationists, artists, people seeking inspiration and other visitors. In addition, scenery on the Daniel Boone National Forest contributes to community identity, a sense of place, quality of life, the tourism industry, and supports property values.

Cultural & Heritage Resources
The cultural and sacred features of National Forest System landscapes provide people an understanding of their place in natural and cultural environments. By providing access and integrity of heritage sites, the forest provides connections to the land of ancestors, a sense of place, opportunities for interpretive learning, and fosters traditional uses. The Forest Service also manages and protects paleontological resources for scientific and educational purposes.

Research and Education
National Forest System lands provide opportunities to advance scientific knowledge and transfer that knowledge used to learning and educational activities. For example, the forest had about 74,000 audience members for conservation education programs.

Access
Locals and visitors benefit from access to the forest and its resources. There are 1,407 miles of roads and 629 miles of trails on the Daniel Boone National Forest, providing access for recreation, subsistence, and other resource uses.

⁴ Find the Daniel Boone National Forest website at http://www.fs.usda.gov/dbnf/
Tradeoffs

Managing National Forest System lands often results in changes to ecosystems, resources, or benefits. These tradeoffs in benefits are important to consider in the context of all benefits provided by forests and grasslands. For example, use of forest lands for timber product benefits may imply tradeoffs in benefits to recreation and other uses that benefit from standing timber. Understanding benefits to people helps clarify the implications of these tradeoffs.

Forest Products

Many rural communities have depended on the timber industry to support their livelihoods, culture and heritage. Outside these communities, forest products are widely used in construction. Timber harvest is sometimes done as a means of forest restoration, improving habitat, ability to store carbon, and resilience to wildfire, disease, and invasive species. Opportunities to collect fuelwood on National Forest System lands supports family traditions and provides an affordable fuel source for households that depend on wood heating. 390,200 cubic feet of Sawtimber, 161,200 cubic feet of commercial fuelwood, and 221,400 cubic feet of pulp, posts/poles and other wood products were harvested from the forest in 2015. Other forest products, such as mushrooms, berries, boughs and plants, provide medicinal benefits, subsistence, and recreational activities.

Water & Air

National Forest System lands play a critical role in protecting the nation’s water resources. People and animals that live in and downstream from the forest rely on this resource. People that recreate on or depend on these lands for their livelihood, such as farmers, fisherman, and recreation guides, benefit from this water as well. The Environmental Protection Agency designates protected areas where public water systems draw their drinking water from surface and groundwater supplies. Water goes to about 487,000 people served by protected areas overlapping the forest by at least 25% (at the subwatershed scale). In the larger area, water from all ownerships supplies additional uses, including 15% for municipal use, 23% for agriculture, 7% for industry and mining uses, and 55% for other uses such as aquaculture and thermoelectric needs.

National forests play a critical role in protecting the nation’s air resources: not only for the people and animals that live within the national forest but also for those off National Forest System Lands. Trees and other vegetation on the Daniel Boone National Forest provide air through respiration and capture common air pollutants.
Minerals & Energy
National Forest System lands provide access for commercial development of a variety of mineral resources. This includes locatable minerals (such as silver and gold), saleable minerals (such as stone, sand and gravel) and leasable minerals (such as coal, oil and gas). People benefit from opportunities for recreational mineral collection on these lands through panning, dredging, sluice-box and metal detector use. In 2015, the top three minerals by sales value, on the Daniel Boone National Forest were coal mining, valued at $2 million, natural gas valued at $217,000, and crude oil valued at $47,000.

Other Benefits
Additional benefits, like wilderness character, provide intangible and spiritual values to society that the Wilderness Act describes as the benefits of an enduring resource. Two percent of the forest is wilderness, which is a benefit for people that value preservation, untrammeled areas, wildlife habitat, and solitude. Additional benefits of forests and grasslands include values not associated with use, the option to use the land and resources in the future, and to pass on the benefits to future generations. For example, people benefit from knowing that wildlife habitat and wildfire resilience will exist in the future and that they can pass on these benefits to future generations.

Additional Information
Headwaters Economics\(^5\) maintains area profiles that can be consulted for a deeper dive into the social and economic characteristics of the area; including important information for consideration of Civil Rights and outreach and effects to Environmental Justice populations.

See the Jobs & Income At a Glance Reports\(^6\) for more information on the economic contributions of forest activities and the Benefits to People StoryMap for a geographical and more comprehensive representation of forest benefits.

Visit us on the web at:

The National Visitor Use Monitoring Program\(^7\) has info on recreation visitation and the Forest Service maintains Ecosystem Services resources\(^8\).

This report was created using recent data from various sources. Data and references are available in the sources file found at the website containing this report.

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What are other unique forest benefits?

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\(^5\) Area profiles from Headwaters can be found at https://headwaterseconomics.org/tools/economic-profile-system/about/
\(^6\) Jobs & Income At a Glance Reports can be found at https://www.fs.fed.us/emc/economics/contributions/at-a-glance.shtml
\(^7\) More information on recreation use can be found at https://www.fs.fed.us/recreation/programs/nvum/
\(^8\) More information on ecosystem services can be found at https://www.fs.fed.us/ecosystemservices/